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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,509	03/02/2004	Roy Peterson	PHUS030058	2778

28159 7590 07/18/2008

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EXAMINER

CATTUNGAL, SANJAY

ART UNIT	PAPER NUMBER
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3768

MAIL DATE	DELIVERY MODE
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07/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/791,509	Applicant(s) PETERSON ET AL.	
	Examiner SANJAY CATTUNGAL	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 2/28/2008 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,817,024 to Ogle et al. in view of U. S. Patent No. 6,743,541 to Chang et al.

Regarding Claims 1 and 3, Ogle teaches an ultrasonic diagnostic probe comprising: an ultrasonic transducer array; an integrated transceiver circuit; and a beamformer.

Ogle does not expressly teach the use of fuel cells as an energy source.

Chang teaches the use of fuel cells as an alternate clean energy source for any electronic device. (Col. 1 lines 10-21)

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Ogle with a fuel cell energy source as taught by Chang, since such a setup would result in a clean and more reliable energy source.

Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,817,024 to Ogle et al. in view of U. S. Patent No. 6,743,541 to Chang et al and further in view of U. S. Patent No. 7,005,206 to Lawrence et al.

Regarding Claims 4-9, Ogle and Chang teaches all of the above claimed limitations but does not expressly teach a power converter, coupled to the fuel cell, which produces a stepped up voltage level in response to the power level produced by the fuel cell.

Lawrence teaches use of a voltage boost converter circuit. (Fig. 13 a-2)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ogle and Chang with a voltage boost converter as taught by Lawrence since a boost converter is primarily responsible for boosting the fuel cell voltage to a higher voltage level and for supplying charge to capacitive and battery storage devices within the circuit. (Col. 15 lines 33-36)

Regarding Claims 5, Lawrence teaches a capacitor, coupled to the output of the fuel cell, which acts to store energy for peak load conditions. (Col. 18 lines 34-43)

Regarding Claims 6, 7, Lawrence teaches that the source of fuel comprises a replaceable fuel cartridge or ampule, wherein the fuel cartridge or ampule contains a methanol- or alcohol-based fuel. (Abstract and Claim 1)

Regarding Claims 8, 9, Lawrence teaches that the fuel cell further comprises an anode, a cathode, and an ion exchange membrane located between the anode and the cathode. (Abstract)

Regarding Claim 15, Lawrence teaches a capacitor, coupled to the output of the fuel cell, which acts to store energy for peak load conditions. (Col. 18 lines 34-43)

Regarding Claim 16, Lawrence teaches that the source of fuel comprises a replaceable fuel cartridge or ampule, wherein the fuel cartridge or ampule contains a methanol- or alcohol-based fuel. (Abstract and Claim 1)

Regarding Claims 17 and 18, Lawrence teaches that the fuel cell further comprises an anode, a cathode, and an ion exchange membrane located between the anode and the cathode. (Abstract)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANJAY CATTUNGAL whose telephone number is (571)272-1306. The examiner can normally be reached on 9:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian L Casler/
Supervisory Patent Examiner, Art
Unit 3737

SPC